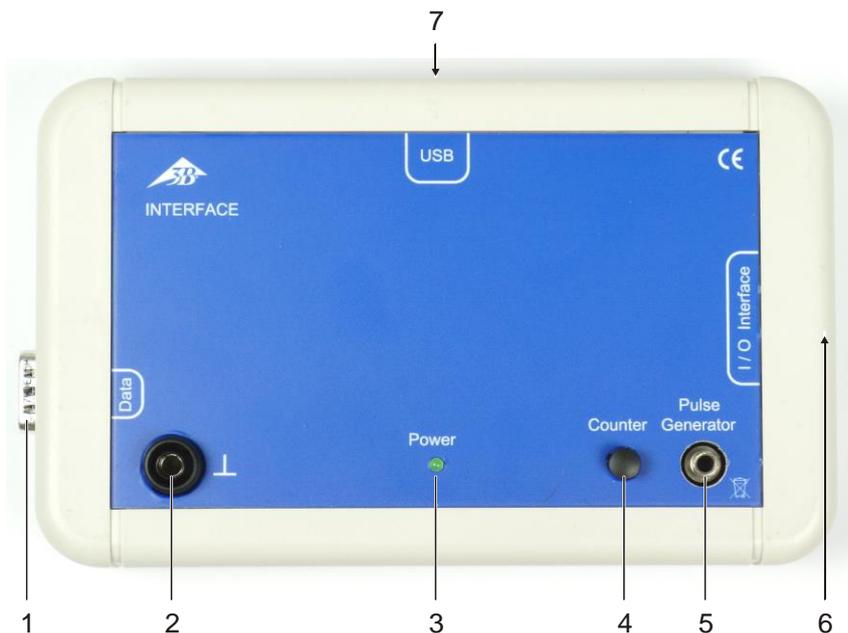


Bio-Interface 1020602

Instruction Sheet

07/17 MH



- 1 Connection for Bio-Amplifier
- 2 Ground jack
- 3 Operating voltage and status display
- 4 Counter button
- 5 Output for stimulator
- 6 Connection for measuring modules
- 7 USB port

1. Description

The Bio-Interface is used for measurement and control in electrophysiological experiments. It is operated with a computer via the serial USB interface. Driver and measurement software are included in delivery.

Integrated is an electrically isolated, software-controlled pulse generator, which functions as a stimulator in conjunction with the earthworm experiment chamber (1020601). The measurement software supplies rectangular pulses of variable amplitude and width; these can be delivered as individual pulses or as double pulses with variable separation.

The Bio-Interface is intended only for use with the Bio-Amplifier (1020599/600) and 3B Scientific sensors or measuring modules. In conjunction with the Bio-Amplifier, the measured signals are displayed and evaluated, or further processed, in the appropriate measurement software.

Detailed information on individual experiments can be found in the booklet or the experiment instructions in the respective measurement software.



2. Safety instructions



Electrophysiological experiments on humans must not be performed without reliable isolation from the mains voltage!

Power is supplied to the Bio-Interface and the devices connected to it exclusively via the USB port from the power supply of the computer.

- Operate the computer used in electrophysiological experiments with battery power only.

When performing electrophysiological experiments on humans, the measured values and measurement curves obtained with the Bio-Interface and the specific measurement software must never be used to assess the state of health of a person!

- Use measured values and measurement curves solely for educational purposes!

The Bio-Interface is intended for use in dry areas that are suitable for electrical equipment. When it is used as intended, the safe operation of the device is guaranteed. The safety of the device is, however, not guaranteed if it is operated incorrectly or handled carelessly.

If it is suspected that it is no longer possible to operate the device safely (e.g. in the event of visible damage), the device must be taken out of service without delay.

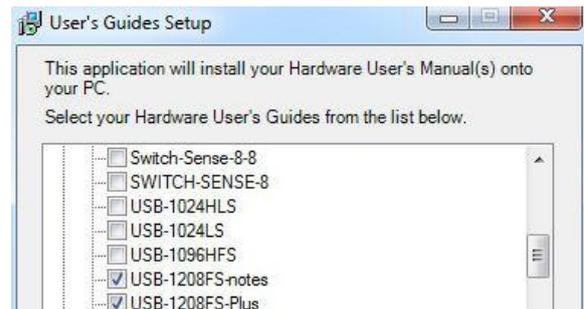
In schools and training facilities, the use of the device must be supervised by suitably trained staff.

- Before using the device, read the operating instructions carefully and completely.
- Connect only 3B measuring modules or 3B sensors that are intended for operation with the Bio-Interface (e.g. stimulator for earthworm experiment) to the connection for measuring modules and sensors.
- Do not connect anything other than the Bio-Amplifier (1020599/600) to the connection for Bio-Amplifiers.

3. Software installation and initial setup

Before the Bio-Interface is connected to the PC for the first time, the measurement software and the drivers must be installed from the included USB stick as follows:

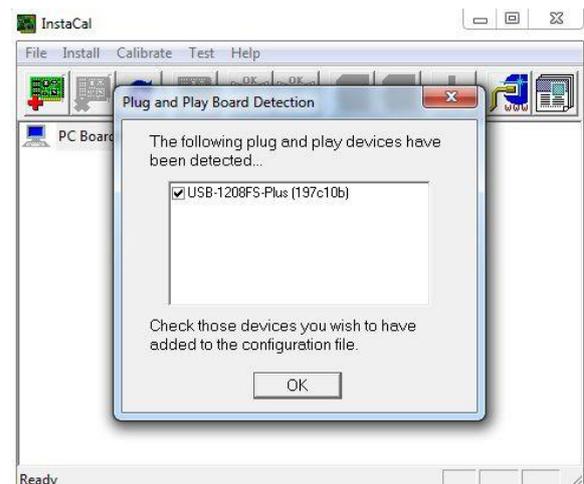
- Run “3B Neuro Setup.exe” and follow the instructions given by the software during installation.
- Select hardware operating instructions as follows:



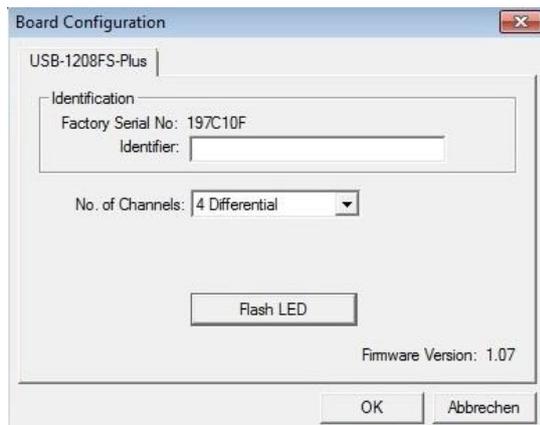
- Once the software has installed successfully, connect the Bio-Interface to the PC and open the file

C:\Programme\MeasurementComputing\DAQ\inscal32.exe

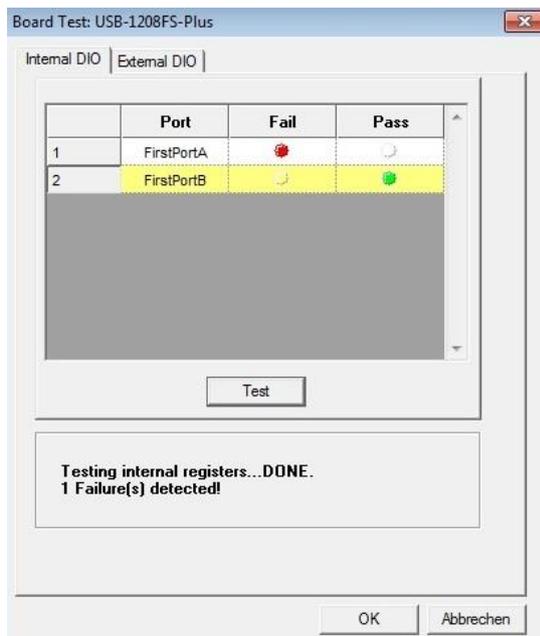
The USB module “USB- 1208FS-plus” is displayed with serial number.



- Then double-click on the module and set the following configuration:



- To test, click on the “Flash LED” button and select OK.
- Then perform “Digital Test”:



The Bio-Interface is ready for operation and the measurement software can be started.

- Before starting a measurement, test the Bio-Interface together with the Bio-Amplifier. To do so, couple the two devices with one another via their RS32 interface and connect to the PC with the USB cable.
- To start the software, open the folder C:\Programme\3B Scientific GmbH\Neuro or after downloading the relevant measurement software (under the “Downloads” tab on the product page in the 3B Webshop).

The user requires read and write permissions on the PC and for this folder.

- Invoke the measuring programs Elphys.exe, CardioCare.exe and EMG.exe by double-clicking them.

The measurement data can then be evaluated in the programs BioView.exe and CardioView.exe. In addition, corresponding folders, e.g. ElphysDir, CardioDir and EMGDir, in which the measurement data from the respective measurement software are saved, are created on the C drive.

It should be noted that administrator rights are required on the relevant PC for the installation of the Bio-Interface and the drivers. For the measurement and evaluation programs, only read/write permissions are needed.

If a different Bio-Measurement Interface is connected to the PC, the program “inscal32.exe” must be opened again and the steps described above repeated.

4. Technical data

Power supply (USB):	+5 V, max. 200 mA
USB port:	Type B socket
Connection for Bio-Amplifier:	D-sub plug, 15-pin.
Connection for measuring modules and sensors:	D-sub socket, 15-pin.
Output for stimulator:	Jack socket 3.5 mm
Dimensions:	Approx. 175x105x30 mm ³
Mass:	Approx. 335 g

5. Disposal

- Dispose of the packaging at the local recycling points.
- When the time comes for the device itself is to be scrapped, it does not belong in the normal domestic waste. If the device is used in private households, it may be disposed of at the local public disposal facilities.
- Observe the applicable regulations for the disposal of electronic waste.

